Namibia - Indigenous Natural Products

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Overview

Identification

COUNTRY
Namibia

EVALUATION TITLE
Indigenous Natural Products

EVALUATION TYPE
Independent Performance Evaluation

ID NUMBER
DDI-MCC-NAM-IE-AG2-2014-v01

Version

VERSION DESCRIPTION
Anonymized dataset for public distribution

Overview

ABSTRACT
The evaluation employs a mixed-methods approach in which qualitative techniques and quantitative analysis support each other, recognizing that the techniques used will depend on the evaluation question to be addressed.

The source of information for the qualitative analysis is through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) with the household and conservancy or PPO member-households and management, as well as with stakeholders in the tourism sector from the private-sector and associated regulatory bodies.

In the case of the quantitative analysis, control groups are not available for the evaluation of either the CS activity or INP sub-activities. The CS activity is taking place in most of the conservancies of the Northern Communal Areas (NCAs), which were selected for their tourism potential. Conservancies outside of this activity are generally in areas with differing natural endowments and market access and, as such, cannot serve as a comparable set of non-intervention conservancies. In the case of the INP sub-activities, it is not feasible to establish a valid comparison group because the intervention covers nearly the entire INP producer population. Instead, a type of a reflexive (before-and-after) design called a dose-response model is employed whereby each conservancy or PPO at baseline contributes to our understanding of the counterfactual by allowing us to infer whether differences in the amount of Compact assistance (the “dosage”) influence and, therefore, impact on CS or INP performance.

The model identifies likely program impacts by estimating the marginal effects of different intervention levels (e.g., intensity of training or number and type of grants) on outputs and outcomes of interest at critical points along the causal chain from the short to medium run. Originally, program impact on household income, the ultimate expected result by MCA-N, was to be a focus of examination, but it is now accepted that such changes would not likely be large enough to be detected over the relatively short evaluation period.

EVALUATION METHODOLOGY
Pre-Post

UNITS OF ANALYSIS
Depending on the research question: conservancy, PPO, household, individual

Household survey: The primary unit of analysis is the household. The definition of a household for the purposes of this survey is a group of people that live in the same compound and take meals together at least 4 days a week, as well as young children living elsewhere that are answerable to the head of the household. Several questions in the questionnaire apply to each individual family member.

KIND OF DATA
Sample survey data [ssd]

TOPICS

Topic	Vocabulary	URI
Other	MCC Sector	
Gender	MCC Sector	
Namibia		

KEYWORDS
Performance evaluation, Namibia, Agriculture, Tourism, Indigenous products, Harvest

Coverage

GEOGRAPHIC COVERAGE
Evaluation: Northern Communal Areas of Namibia

Household Survey: The survey covers twenty-three INP producer organizations and twenty-eight conservancies in nine regions of Namibia. It covers the conservancies and INP producer organizations of interest and is not meant to be nationally representative.

UNIVERSE
For INP, the sample frame only included membership from 28 PPOs (out of 63 targeted PPOs) since only the most organized PPOs could provide membership lists.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
NORC at the University of Chicago	

OTHER PRODUCER(S)

Name	Affiliation	Role
NORC at the University of Chicago		External evaluator
Survey Warehouse	Subcontractor to NORC	Local Data Collection Firm

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata
NORC at the University of Chicago	NORC		Metadata Producer

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DDI DOCUMENT ID
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MCC Compact and Program

COMPACT OR THRESHOLD
Namibia

PROGRAM
The Millennium Challenge Corporation's (MCC) Compact with the Republic of Namibia aims to reduce poverty through economic growth fostered by investment in the Education, Tourism and Agriculture sectors. The Millennium Challenge Account Namibia (MCA-N) was established to design and implement activities in these three areas to achieve this anti-poverty objective. The Conservancy Support and Indigenous Natural Products Household Survey (CS/INP) is a comprehensive two-round household survey of approximately 1,500 households in 2011 and 2014. The data were collected in order to evaluate the impact of the Millennium Challenge Account Namibia's implementation of two separate anti-poverty measures in Namibia: first, investments in communal conservancies in the northern part of the country designed to attract ecotourism and generate revenue for local inhabitants; and second, assistance to producer and processor organizations (PPOs) of indigenous natural products, meant to improve product quality and production of harvesters and enhance business capacity of PPOs. In order to evaluate these interventions, the survey collected extensive data on household income, finances, expenses, and assets, as well as data on specific elements of the intervention (training, payments, etc.). While the primary objective of the survey was to generate indicator variables regarding the financial situation of households, valuable data on household characteristics and demographics were also collected. As part of the Agricultural component of the Compact, the Indigenous Natural Products (INP) Activity will assist producer and processor organisations (PPOs) to improve their volume, quality, and value-added products, in addition to their organisational and business capacity. The INP Activity is expected to increase incomes for an estimated 7,000 primary producers and their households, benefitting a total of about 35,000 individuals. An important aspect of the INP Activity is not just generating income for the rural poor but to do so in accordance with an “access and benefit sharing” approach. The INP Activity has three sub-activities: 1. Support to PPOs, including both training and grant support through Primary Production Improvement Grants (PPIG) 2. Delivery of market information on INP products and market data through the National Botanical Research Institute (NBRI) 3. Provision of an INP Innovation Fund

MCC SECTOR
Agriculture and Irrigation (Ag & Irr)

PROGRAM LOGIC
INP Program Logic. For the PPO component, the intervention begins with harvesters who are part of a PPO. Training and assistance can go directly to harvesters, as is the case with sustainable harvesting techniques, or to PPO management, as is the case with the PPIG grants which are in-kind grants providing equipment, facilities or services to the PPOs. Harvesters collect/harvest the INP which in some cases then undergoes a small amount of processing at the harvester level, for example decortication in the case of Ximenia and slicing in the case of Devil's Claw. In other cases there is no processing at this level or processing is done at a separate site, for example with Marula at the Eudafano Women's Cooperative which presses, cleans and packages the oil. The next step in the process is developing or strengthening markets for each product to ensure the INP can be moved through the value chain. The INP Activity was designed to impact each point in this chain: 1. Harvesting - through training 2. Processing - through training, PPIG grants, and the Innovation Fund (in reference to developing more efficient processing and refining techniques) 3. PPO - PPO level trainings, facilitation of buying agreements and assistance to help harvesters work together to receive the best prices for their goods, and institutional assistance and strengthening 4. Marketing - To develop new markets for INP and strengthen existing markets The end goal of the intervention is to ensure that harvesters receive more income from harvesting INP, the resource is sustainably harvested (especially Devil's Claw) and that the PPO structure is sustainably managed over time. A secondary goal of the activity is to ensure that historically marginalized groups, such as women and minority ethnic groups, benefit from the intervention. It may be the case that as INP revenue increases, men will insert themselves into the process in order to benefit from the new revenue stream. Although these goals are most likely reachable, the time frame for the evaluation may not be long enough to capture large-scale changes in income or sustainability. Therefore it is also important to consider possible shorter-term successes such as increased INP sales, gender empowerment, the development and fielding of new and innovative processing techniques, and increased harvesting yields when assessing the impact of the INP intervention.

PROGRAM PARTICIPANTS
INP Activity. Approximately 7,000 primary producers, and management from 60 PPOs. Other organizations were also able to compete for funding through the INP Innovation Fund. Household survey: Members of the target conservancies and harvesters belonging to producer organizations focused on the indigenous natural products of interest.

Sampling

Study Population

For INP, the sample frame only included membership from 28 PPOs (out of 63 targeted PPOs) since only the most organized PPOs could provide membership lists.

Sampling Procedure

For the INP activity, the sample design was comprised of households selected from lists of PPO producers (which includes households both inside and outside conservancies). The sample design was originally going to be a two-stage design in which the first-stage sample units were communities on the PPO list (e.g. villages) and the second-stage sample units were households within the selected communities. Unfortunately, it was not possible to obtain community locations for many of the producers in the INP sample frame, so it was not practical to implement the original concept of selecting a two-stage sample for the INP survey. In fact, few variables were available in the PPO frame that could be used to construct an analytical survey design. Apart from PPO, the only variable useful for constructing an analytical design was INP species. Therefore, it was decided to select a stratified single-stage sample from the frame, where stratification would be by INP species.

While the target sample size for the INP household survey was 500 households, the final baseline dataset only includes 296 household interviews. As a result, in addition to the 296 households from the baseline survey, the endline INP household survey also includes an additional 204 INP households in order to reach the original target of 500 households and to provide additional data points for the endline analysis. These additional households were sampled from the original baseline sample frame in order to maximize comparability. It is important to note the following points concerning this additional sample:

(1) Of the 28 PPOs represented in the baseline sampling frame, 18 PPOs are represented in the final baseline dataset. Because NORC does not have baseline information for the PPOs which were not surveyed at baseline, including them at endline would not be useful for the CS/INP evaluation given that a pre-post analysis would not be possible. Therefore, the additional 204 endline households were drawn from the 18 PPOs represented at baseline only.

(2) However, the 18 PPOs represented in the baseline dataset do not cover Commiphora. Given that Commiphora is one of the main INPs targeted by the intervention, the final endline sample also included Commiphora PPOs (in addition to the 18 PPOs included at baseline). While a pre-post analysis would not be possible for these harvesters, the data from these harvesters can be used to generate descriptive statistics about the endline period.

CS/INP Focus Group Discussions

For the CS Activity, a total of 40 FGDs were conducted with conservancies. For the midline data collection, 12 conservancies were selected to cover a wide range of conservancy characteristics such as geographic location, size, population and institutional level. For each conservancy, two focus groups were conducted: one with the members of the management staff and one with members who did not hold a management position with the conservancy, bringing the total of midline CS FGDs to 24. For the endline data collection, 8 of the original 12 conservancies were re-selected and similar to midline, FGDs were conducted with management and non-management members, bringing the total of endline CS FGDs to 16.

For the INP Activity, a total of 40 FGDs were conducted with members of PPOs. For the midline data collection, 12 PPOs were selected to cover a wide range of PPO characteristics such as geographic location, implementer, and institution type. For each PPO, two focus groups were conducted: one with the members of the management staff and one with members who did not hold a management position with the PPO, bringing the total of midline INP FGDs to 24. For the endline data collection, 8 of the original 12 PPOs were re-selected and similar to midline, FGDs were conducted with management and non-management members, bringing the total of endline INP FGDs to 16.

Recruiting Focus Group Discussion participants was mostly done with the help of the senior staff of the conservancies and the PPOs, typically either chairpersons or coordinators whose contact information was received from the relevant implementer. The teams made phone contact prior to arriving at conservancies or PPO areas and made arrangements to meet upon arrival. All recruitment criteria and procedures were discussed in these first meetings. Conservancy/PPO representatives then listed the names and locations of the appropriate respondents. Where possible, with the help of the chairpersons or coordinators, the field team made phone calls to the identified respondents to make arrangements to meet and discuss the study and invite them to participate. In other cases, where time allowed, the chairperson or coordinator organised a meeting for the team to meet with and conduct all necessary arrangements with a pool of potential respondents at a central location. From this pool, respondents were then selected as per the recruitment protocols.

CS/INP Key Informant Interviews

Sample development for the key informant interviews (KIIs) was a joint effort between the NORC, MCA-N, and Survey Warehouse teams. NORC produced a list of different types of respondents to potentially pursue, and the conservancy and INP experts on the evaluation team refined the list and suggested names of individuals in some categories. After this list was shared with MCA-N, NORC met with MCA-N staff to discuss the list, further refine it, and obtain contact details for potential respondents. The list of potential KII respondents continued to evolve throughout the recruitment process.

For the CS Activity, a total of 20 CS KIIs were conducted, 8 during the midline round and 12 during the endline round.

For the INP Activity, a total of 19 INP KIIs were conducted, 12 during the midline round and 7 during the endline round.

Response Rate

INP Survey. At baseline, 298 interviews were completed out of 631 attempted interviews. NORC was asked to complete 500 total INP surveys. However, given the problems with the initial frame, it was impossible to reach this target. The overall response rate based on the households within scope is: 298/502 = 59.4%.

For the endline survey sample there were two different “pools” of people: a pool of 296 respondents which were interviewed at baseline, and a pool of 204 "new households" interviewed at endline, for a total target of 500 respondents. Where INP households could not be located, supervisors used the sample replacement list provided by NORC to locate the next replacement. Overall, 496 interviews were completed against a target of 500. A total of 143 replacements were made.

Weighting

Harvester Sampling Weights for Baseline and Endline by INP:

The baseline sample is constructed from 18 PPOs out of approximately 63 that were operational and had member lists in 2009. The number of households selected was established by MCA prior to NORC's participation. Harvesters were randomly selected from a sampling frame comprising of the PPO member lists of the subset of PPOs specializing in the respective INP. With this in mind each weight is calculated as the reciprocal of the probability of selection. This requires dividing the population size by the actual baseline or endline sample size. The use of these weights depends on whether one is conducting panel analysis or cross-sectional comparisons. For panel analysis the baseline weights is applied to both rounds. For comparison of discrete cross-sections, the baseline and endline weights in the table is applied accordingly. The reason for this difference is that the latter includes additional observations randomly sampled from the same population so the larger sample implies that each observation.

Baseline weights by INP:
- Devil's Claw: 14.226
- Marula: 10.621
- Ximenia: 5.814

Endline weights by INP:
- Commiphora: 5.825
- Devil's Claw: 5.765
- Marula: 10.191
- Mopane: 5.333
- Ximenia: 5.732

Questionnaires

Overview

2013-2014 Qualitative Data Collection:
The conservancy guide covers the following topics, as relevant:
- Business partnerships and conservancy revenue
- Conservancy governance
- Effect of game acquisitions
- Household well-being
- Gender dimensions of access and benefits
- Sustainability

The PPO guide covers the following topics:
- PPO organisational capacity
- Harvest, sales and income
- Household wellbeing
- Intra-household gender considerations
- Sustainability

2011-2014 Quantitative Data Collection:
- Household surveys. Two rounds of the CS survey and the INP survey, which are explicitly designed for the evaluation, and will track the same group of 300 INP harvester-households and 1,000 CS members in 2011 (baseline), and 2014 (endline). To compensate for INP harvesters not accessible during baseline an additional 200 will be interviewed at endline to bring the endline total to 500. These data will provide information on important measures of impact, as well as on household characteristics and demographics.

- Organisational surveys. Both to track governance and management improvements at the level of the conservancy and PPO, as well as to collect fixed-effect covariates for household-level multivariate analysis, “factsheets” will be completed for each conservancy and PPO. In the case of the former, NORC will draw on the implementer databases (see next bullet) as well as the 2009 ARD baseline conservancy needs assessment (CNA) of conservancy institutional capacity. In the case of the PPOs, the expectation is that the factsheets could be completed using NRI's database of monitoring data; any remaining unanswered questions would be answered during the fielding of the household survey.

- Implementer databases. For the CS activity these would include the NACSO Community-Based Natural Resource Management (CBNRM) database, which has annual information on key economic indicators of interest such as revenues at conservancy level and share of conservancy revenue paid out in dividends, as well as conservancy-level GIS data and game counts available through internal databases for the Conservancy Development Support Services (CDSS), and the Conservancy Development Grants Fund (CDSGF). Separately, there are data on the size of grants and the geographic distribution of services and grants. For the INP activity these would include Natural Resources Institute (NRI), University of Greenwich's program monitoring outputs.

Data Collection

Data Collection Dates

Start	End	Cycle

Data Collection Mode

Face-to-Face Paper-and-Pencil Interviews (PAPI)

Data Collection Notes

Data for the household survey was collected via face-to-face paper-and-pencil interviews (PAPI) in respondents' homes. Separate versions of the questionnaire were used for the conservancy members and harvesters of indigenous natural products (the two questionnaires differed only in a handful of questions).

Questionnaires

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Data Collectors

Name	Abbreviation	Affiliation

Name	Abbreviation	Affiliation
Survey Warehouse		

Data Processing

Data Editing

NORC performed a number of logic and consistency checks on the data.

Other Processing

Data entry was conducted using an Epidata platform that matched the survey content and allowed for careful checks of internal logic and consistency. Data for the CS/INP survey was double data entered by data enterers in an iterative process that began the second week of data collection for both rounds. After completing data entry the two Epidata files were compared and reconciled by going through the hardcopy questionnaires where appropriate.

Data Appraisal

No content available